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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,775	02/18/2004	Floyd Backes	160-028	2754
34845 7590 01/12/2007 McGUINNESS & MANARAS LLP 125 NAGOG PARK ACTON, MA 01720			EXAMINER DUONG, FRANK	
			ART UNIT 2616	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/12/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/780,775	<b>Applicant(s)</b> BACKES ET AL.	
	<b>Examiner</b> Frank Duong	<b>Art Unit</b> 2616	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This Office Action is a response to the amendment dated 10/30/06. Claims 1-5 are pending in the application.

#### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application Nos. 10/780,804; 10/781/121; 10/181,157; 10/781,214; 10/781,250; and 10/781,284 in view of Klein et al (USP Patent Application 2003/0100328) (hereinafter "Klein").

Specifically, Application No. 10/780,804 comprises independent claim 1 which is essentially identical to claim 1 of the instant application, whereby the primary difference

is that the latter application refers to "second channel" while the instant application refers to "alternative channel". At the time of the invention it would have been obvious to one of ordinary skill in the art for a "second channel" to be an "alternative channel" since secondary options are, by definition, alternative options.

Additionally, the claims of Application Nos. 10/781,121 and 10/781,250 are identical to claims 1-5 of the instant application with the exception that the preamble of the claims of the latter application recites a "program product" whereas the preamble of the claims of the instant application recites an "apparatus". At the time of the invention it would have been obvious to one of ordinary skill in the art to implement a program product within an apparatus since one of ordinary skill in the art readily recognizes that a program may advantageously be performed within an apparatus to provide functionality for the apparatus.

Further, the claims of Application Nos. 10/781,157 and 10/781,214 are identical to claims 1-5 of the instant application with the exception that the preamble of the claims of the latter application recites a "method" whereas the preamble of the claims of the instant application recites an "apparatus" and the instant application includes the additional language of "logic for". At the time of the invention it would have been obvious to one of ordinary skill in the art to utilize an apparatus for performing a method since one of ordinary skill in the art readily recognizes that an apparatus may advantageously perform steps of a method in order to provide a functional operation. Further, at the time of the invention it would have been obvious to one of ordinary skill in the art to implement steps of an invention within logic since one of ordinary skill in the

art readily recognizes that it is well known in the art to implement steps of invention with logic in order to perform the invention.

Still further, the claims of Application No. 10/781,284 are identical to the claims of the instant application with the exception that the claims of the instant application recites the additional limitations of one channel and an alternative channel. At the time of the invention it would have been obvious to one of ordinary skill in the art to remove the limitation of being restricted by a particular first and second channel configuration in order to implement the invention in a single-channel system since one of ordinary skill in the art readily recognizes that a communications system may comprise any number of channels depending upon the number of devices communicating within the system.

Finally, with respect to all of the above-mentioned co-pending applications, while each may not specifically disclose logic operative to adjust transmission power if the alternative access point indicates that the wireless device can become associated with the alternative access point as newly recited in claim 1 of the instant application, Klein specifically teaches it is known in the art to adjust transmission power if an alternative access point indicates that a wireless device can become associated with the alternative access point (see paragraph 0018 regarding "*the transmitter power level of mobile units 14 is adjusted in accordance with the power level set by the power level data 26 of the access point transmitters with which the mobile units are associated or about to become associated with*"). The teaching thereat is equated to corresponding to the claimed limitation of "*logic operative to backoff (adjust) transmission power by an amount indicated by the alternative access point if the alternative access point indicates*

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*that the wireless device can become associated with the alternative access point.”* At the time of the invention it would have been obvious to one of ordinary skill in the art to include disclose logic operative to adjust transmission power if the alternative access point indicates that the wireless device can become associated with the alternative access point in each of the above-mentioned co-pending applications since such teachings are well known in the art as disclosed by Klein.

This is a provisional obviousness-type double patenting rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over English

et al (US Patent Application 2003/0036374) (hereinafter "English") in view of Slovin (USP 6,144,855), further in view of Klein.

Regarding **claim 1**, English teaches an apparatus for use by a wireless device (e.g., mobile node 902a, see FIGS. 9 and 10) in a wireless communications environment including multiple access points and stations, wherein stations gain network access by associating with one of the access points, comprising: logic for associating the wireless device with a current access point on one channel (e.g., see paragraph 0170, particularly lines 9-17 regarding mobile node 902a associating with one of access points 904a or 904b, inherently comprising a respective channels within respective radio coverage areas 1012 and 1014; see also paragraphs 0076, 0100, 0141 and 0163 regarding channels); logic for ascertaining by the wireless device whether the wireless device should attempt to associate with an alternative access point operating on an alternative channel (e.g., see paragraph 0170, particularly lines 9-17 regarding mobile node 902a makes the decision of which access point 904a or 904b to associate with, inherently comprising a respective channels within respective radio coverage areas 1012 and 1014; see also paragraphs 0076, 0100, 0141 and 0163 regarding channels; and logic for requesting association with the alternative access point operating on the alternative channel if it is ascertained that the wireless device should attempt to associate with the alternative access point (e.g., see paragraph 0180 regarding the handoff of communications to a new access point; see also generally paragraphs 0146-0181).

However, English may not specifically disclose the ascertaining is based at least in-part on signal strengths of transmissions from the current and alternative access points.

Slovin, like English, also teaches an apparatus for use by a wireless device for associating with access points (e.g., see col. 1, line 35 - col. 4, line 35), and specifically discloses the well known teaching for ascertaining to be based at least in-part on signal strengths of transmissions from a current and an alternative access point (e.g., see col. 9, lines 6-24 regarding selecting the best access point according to the RSSI, and see col. 1, lines 62-63 clearly identifying the term of art RSSI as radio signal strength intensity"). Additionally, the teachings of Slovin provide an equalized ratio of available channels and demanded channels over a plurality of stations and a plurality of access points, for overall improved operation (e.g., see col. 1, lines 35-58 as well as col. 1, line 59 - col. 4, line 35). Thus, at the time of the invention, not only was it well known in the art for ascertaining to be based at least in-part on signal strengths of transmissions from a current and an alternative access point (e.g., see col. 9, lines 6-24 regarding selecting the best access point according to the RSSI, it would further have been obvious to one of ordinary skill in the art to associate access points as taught by Slovin in order to provide an equalized ratio of available channels and demanded channels over a plurality of a stations and a plurality of access points, for overall improved operation (e.g., see col. 1, lines 35-58 as well as col. 1, line 59 - col. 4, line 35).

However, English in view of Slovin may not specifically disclose "*logic operative to backoff (adjust) transmission power by an amount indicated by the alternative access*



*point if the alternative access point indicates that the wireless device can become associated with the alternative access point."*

Klein, like English and Slovin, also teaches an apparatus for use by a wireless device for associating with access points (e.g., see abstract). Further, Klein specifically teaches logic operative to adjust transmission power if an alternative access point indicates that a wireless device can become associated with the alternative access point (*paragraph [0018] and thereafter*). The teaching thereat is equated to corresponding to the claimed limitation of "*logic operative to backoff (adjust) transmission power by an amount indicated by the alternative access point if the alternative access point indicates that the wireless device can become associated with the alternative access point.*" Additionally, the teachings of Klein provide transmitter power level control for power conservation and avoidance of radio interference within the network (e.g., see Klein at paragraphs 0001-0010). Thus, at the time of the invention it would have been obvious to apply the wireless communication techniques of Klein to the wireless communications of English in view of Slovin in order to conserve power and avoid radio interference within the network (see Klein at paragraphs 0001-0010).

Regarding **claim 2**, English teaches logic for automatically collecting, by the wireless device, information about access points operating on other channels (e.g., see paragraph 0178 regarding mobile node 902 being informed about information regarding access points 904a, 904b and 904c; and also paragraphs 0076, 0100, 0141 and 0163

regarding channels). Therefore, English in view of Slovin and further in view of Klein teaches the claimed limitation in a manner as aforementioned.

Regarding **claim 3**, English teaches the logic for ascertaining ascertains that the wireless device should attempt to associate with the alternative access point operating on the alternative channel if the alternative access point on the alternative channel is closer than the current access point (e.g., see paragraphs 0170-0180 regarding mobile node 902 determining which access point to associate with based upon proximity to the access points). Therefore, English in view of Slovin and further in view of Klein teaches the claimed limitation in a manner as aforementioned.

Regarding **claim 4**, English teaches the ascertaining is by calculating a first biased distance between the wireless device (e.g., mobile node 902) and the current access point based on "x" samples (e.g., see paragraphs 0167-0168 and 0175 regarding the impulse radio unit 1016 within mobile node 902 triangulating the current position of the mobile node 902, inherently comprising three or more samples); calculating a second biased distance between the wireless device and the alternative access point operating on the second channel based on "y" samples (e.g., see paragraphs 0175-0180 regarding mobile node 902 estimating such a distance by comparing the current position of the mobile node 902 with a map generated in step 1104 of FIG. 11 which comprises the position of a different access point such as 904b or 904c) where "y" (e.g., known position of mobile node 902 and known position of access point 904b) is less than "x" (e.g., three or more samples for triangulating the current position of mobile node 902); and ascertaining that the alternative access point

operating on the second channel is closer than the current access point if the second biased distance is less than the first biased distance (e.g., see paragraphs 0164-0181, particularly paragraphs 0170 and 0175-0180 regarding mobile node 902 determining which access point to associate with). Therefore, English in view of Slovin and further in view of Klein teaches the claimed limitation in a manner as aforementioned.

Regarding **claim 5**, English teaches sending a message to the alternative access point operating on the alternative channel (e.g., see paragraph 0171 regarding mobile node 902a deciding to associate with a different access point and handing off communications to the different access point after authenticating with the different access point). Therefore, English in view of Slovin and further in view of Klein teaches the claimed limitation in a manner as aforementioned.

### ***Response to Arguments***

4. Applicants arguments in the response filed 10/30/06 have been fully considered but they are not persuasive.

It appears the Applicants fail to totally address or mention about the non-obvious type double patenting rejection. Applicants are reminded that a complete response must address all aspects of the Office Action.

In the Remarks of the outstanding response, on page 4, pertaining the applied art of Klein, Applicants argue "*claimed invention distinguishes the cited combination because the AP issues an instruction to the STA to backoff power by a specified amount rather than to transmit at a particular power. Klein teaches that the AP sends*

*data representing the power level at which the AP has been set. The mobile unit then sets its power level to the level indicated by the AP or to a higher level."*

In response Examiner respectfully disagrees and asserts the interpretation of Klein's teaching to read on the claimed limitation of *"logic operative to backoff transmission power by an amount indicated by the alternative access point if the alternative access point indicates that the wireless device can become associated with the alternative access point,"* as presented in the amended claim 1 is just. At paragraph [0018] and thereafter Klein clearly states *"Mobile units 14 receive the power level data ("amount indicated by the alternative access point" from the access points and are arranged to adjust the power level ("backoff transmission power") of their own transmitters to correspond to the power level being transmitted by the access point with which the mobile unit is or becomes associated"*. The teaching thereat is equated to corresponding to the claimed limitation of *"logic operative to backoff (adjust) transmission power by an amount indicated by the alternative access point if the alternative access point indicates that the wireless device can become associated with the alternative access point."* Perhaps the Applicants should incorporate the argued limitation into the claims in a response to this Office Action to better reflect the disclosed invention and to further distinguish the claimed invention from that known in the art or applied references.

In the same page of the Remarks, Applicants further argue *"For example, the AP could instruct the STA to reduce power by 3 DB. In other words, the AP transmits a*

*power backoff indicator ("TP Backoff" in the specification) rather than an indicator of actual power level ... of the STA."*

In response Examiner respectfully disagrees and asserts the Applicants appear to base the argument on the limitation in the specification but not in the claims. Perhaps Applicants refer to certain features that are disclosed in the present application but not recited in the reject claims in making the contention that the Klein reference fails to show certain feature of applicant's invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Examiner would also like to point out the Applicants attack references individually in a 103 rejection. Applicants cannot show non-obviousness by attacking references singly where, as here the rejections are based on combination of references. In *re Keller*, 2008 USPQ 871 (CCPA 1981).

Examiner believes an earnest attempt has been made in addressing all of the Applicants' arguments. Due to the amendment fails to place the instant application in a favorable condition for allowance, the rejection is maintained.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pinard et al (USP 5,815,811).

Lee et al (US Patent Pub. 2004/0039817).

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**FRANK DUONG**  
**PRIMARY EXAMINER**

January 5, 2007